



UNITED STATES  
NUCLEAR REGULATORY COMMISSION  
REGION III  
799 ROOSEVELT ROAD  
GLEN ELLYN, ILLINOIS 60137

PDR

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Docket No. 50-484

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Northern States Power Company  
ATTN: Mr. A. V. Dienhart  
Vice President - Tyrone  
Energy Park  
100 North Barstow Street  
Eau Claire, WI 54701

Gentlemen:

Enclosed is a supplement (IE Bulletin No. 78-12A) to IE Bulletin No. 78-12 which requires action by you with regard to your power reactor facility with an operating license or a construction permit.

Should you have any questions regarding this Bulletin or the actions required by you, please contact this office.

Sincerely,

*James G. Keppler*  
James G. Keppler  
Director

Enclosures:

1. IE Bulletin 78-12A
2. List of IE Bulletins  
Issued in 1978

cc w/encls:

Central Files  
Director, NRR/DPM  
Director, NRR/DOR  
PDR  
Local PDR  
NSIC  
TIC  
Regions I & IV

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U.S. NUCLEAR REGULATORY COMMISSION  
OFFICE OF INSPECTION AND ENFORCEMENT

REGION III

November 24, 1978

IE Bulletin No. 78-12A

ATYPICAL WELD MATERIAL IN REACTOR PRESSURE VESSEL WELDS

Description of Circumstances:

This Bulletin is a supplement to IE Bulletin 78-12, issued on September 29, 1978, and the two documents should be considered together.

Bulletin 78-12 described the use of weld wire that failed to meet all specified chemical properties in welds of twelve identified reactor pressure vessels. Use of the atypical weld material in vessel weldments causes them to have higher than normal nil-ductility transition temperature characteristics which in turn requires more conservative pressure/temperature operating limits.

Bulletin 78-12 was issued for the purpose of verifying that similar atypical weld material was not also supplied to other vessel manufacturers and used in reactor pressure vessel fabrication. Recognizing that the scope of the record review required is extensive and time consuming, and to assure that responses provided are meaningful, the requirements of Bulletin 78-12 are being modified.

Action To Be Taken By Licensees and Permit Holders:

For all power reactor facilities with an operating license or a construction permit, except those already identified as possibly having atypical weld material. ✓

✓ The twelve nuclear units identified as having possible atypical pressure vessel weldments are: Three Mile Island Unit Nos. 1 and 2, Crystal River Unit No. 3, Arkansas Nuclear One Unit No. 1, Oconee Unit No. 3, Rancho Seco Unit No. 1, Midland Unit No. 1, Quad Cities Unit No. 2, Browns Ferry Unit No. 1, Turkey Point Unit No. 4 and Zion Unit Nos. 1 and 2.

1. Provide all information available on weld materials used for each reactor vessel primary boundary ferritic weldment.<sup>2/</sup> (Items 1c, 1d, 2a, 2b, first sentence of 2c, 3 and 4 of Bulletin 78-12.) This information may be provided to NRC through the vessel manufacturers or suppliers as appropriate to prevent duplication of data.
2. Correlation of specific heat, lot or batch to specific weldments in specific vessels is not required at this time. (Last sentence of Item 2c, Bulletin 78-12.) However, each licensee is required to verify that the weld materials information provided to the NRC under Item 1 does in fact cover each reactor vessel for which the licensee is responsible.
3. Responses to item 1 above shall be submitted in writing within 120 days of the date of this Bulletin supplement. Reports should be submitted to the Director of the appropriate NRC Regional Office and a copy should be forwarded to the U.S. Nuclear Regulatory Commission, Office of Inspection and Enforcement, Division of Reactor Construction Inspection, Washington, D.C. 20555.

Approved by GAO, B180225 (R0072); clearance expires 7/31/80. Approval was given under a blanket clearance specifically for identified generic problems.

<sup>2/</sup>Weld material information submitted will be evaluated by NRC. Requests for further information will be dependent upon results of these evaluations. Additional requests or instructions will be issued following these evaluations.

LISTING OF IE BULLETINS  
ISSUED IN 1978

Bulletin No.	Subject	Date Issued	Issued To
78-01	Flammable Contact - Arm Retainers in G.E. CR120A Relays	1/16/78	All Power Reactor Facilities with an OL or CP
78-02	Terminal Block Qualification	1/30/78	All Power Reactor Facilities with an OL or CP
78-03	Potential Explosive Gas Mixture Accumula- tions Associated with BWR Offgas System Operations	2/8/78	All BWR Power Reactor Facilities with an OL or CP
78-04	Environmental Quali- fication of Certain Stem Mounted Limit Switches Inside Reactor Containment	2/21/78	All Power Reactor Facilities with an OL or CP
78-05	Malfunctioning of Circuit Breaker Auxiliary Contact Mechanism-General Model CR105X	4/14/78	All Power Reactor Facilities with an OL or CP
78-06	Defective Cutler- Hammer, Type M Relays With DC Coils	5/31/78	All Power Reactor Facilities with an OL or CP
78-07	Protection afforded by Air-Line Respirators and Supplied-Air Hoods	6/12/78	All Power Reactor Facilities with an OL, all class E and F Research Reactors with an OL, all Fuel Cycle Facilities with an OL, and all Priority 1 Material Licensees

LISTING OF IE BULLETINS  
ISSUED IN 1978

Bulletin No.	Subject	Date Issued	Issued To
78-08	Radiation Levels from Fuel Element Transfer Tubes	6/12/78	All Power and Research Reactor Facilities with a Fuel Element transfer tube and an OL.
78-09	BWR Drywell Leakage Paths Associated with Inadequate Drywell Closures	6/14/78	All BWR Power Reactor Facilities with an OL or CP
78-10	Bergen-Paterson Hydraulic Shock Suppressor Accumulator Spring Coils	6/27/78	All BWR Power Reactor Facilities with an OL or CP
78-11	Examination of Mark I Containment Torus Welds	7/21/78	BWR Power Reactor Facilities for action: Peach Bottom 2 and 3, Quad Cities 1 and 2, Hatch 1, Monticello and Vermont Yankee
78-12	Atypical Weld Material in Reactor Pressure Vessel Welds	9/29/78	All Power Reactor Facilities with an OL or CP
78-13	Failures in Source Heads of Kay-Ray, Inc., Gauges Models 7050, 7050B, 7051 7051B, 7060, 7060B, 7061 and 7061B	10/27/78	All General and Specific Licensees with Kay-Ray Gauges